```
     (FILE 'HOME' ENTERED AT 15:20:37 ON 12 MAR 2004)
     FILE 'REGISTRY' ENTERED AT 15:21:00 ON 12 MAR 2004
                E CHRONOTHANE/CN
L1             2 S E4 OR E5
                E CHRONOFLEX/CN
L2             1 S E3
                E ELAST EON II/CN
L3             1 S E5
                E BIONATE/CN
L4             3 S E4 OR E5 OR E6
                E CARBOSIL 10
                E CARBOSIL 10/CN
L5             1 S E3
                E TECHOTHANE/CN
                E TECHNOTHANE/CN
                E TECOTHANE/CN
L6             5 S E4 OR E5 OR E6 OR E7 OR E8 OR E9 OR E10 OR E11 OR E12
                E TECOTHANE TTI 080A/CN
                E TECOFLEX/CN
L7             1 S E3
                E CARBOTHANE/CN
L8             3 S E4 OR E5 OR E6

     FILE 'HCAPLUS, MEDLINE, EMBASE, BIOSIS' ENTERED AT 15:24:34 ON 12 MAR 2004
L9          3415 S L1 OR L2 OR L3 OR L4 OR L5 OR L6 OR L7 OR L8
L10         7457 S DIP COAT? OR BEAD COAT?
L11       364438 S PROSTHESIS OR PROSTHESES OR ENDOPROSTHESIS OR ENDOPROSTHESES
L12       724252 S JOINT OR JOINTS OR ELBOW OR ELBOWS OR HIP OR HIPS OR KNEE OR
L13        47479 S L11(2N)L12
L14           14 S L9 AND L10
L15            0 S L13 AND L14
L16           14 S L14
L17           13 DUPLICATE REMOVE L16 (1 DUPLICATE REMOVED)
L18        87281 S DIP OR DIPS OR DIPPED OR DIPPING
L19            5 S L9 AND L10 AND L11
L20           28 S L9 AND L11(2N)L12
L21      1140116 S COAT?
L22            2 S L20 AND L21
L23            1 S L14 NOT (L17 OR L19 OR L22)

L17  ANSWER 1 OF 13  EMBASE  COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.
     on STN
AN   2002441394  EMBASE
TI   In situ immobilization of proteins and RGD peptide on polyurethane
     surfaces via poly(ethylene oxide) coupling polymers for human endothelial
     cell growth.

L17  ANSWER 2 OF 13  EMBASE  COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.
     on STN
AN   2002059607  EMBASE
TI   Selective binding of albumin on stearyl poly(ethylene oxide) coupling
     polymer-modified poly(ether urethane) surfaces.

L17  ANSWER 3 OF 13  HCAPLUS  COPYRIGHT 2004 ACS on STN DUPLICATE 1
AN   2001:744013  HCAPLUS
DN   137:10938
TI   Encapsulation of isotope on novel .beta.-emitting poly(ethylene
```

terephthalate) surfaces

L17 ANSWER 4 OF 13 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 2001249658 EMBASE
TI Blends of stearyl poly(ethylene oxide) coupling-polymer in chitosan as coating materials for polyurethane intravascular catheters.

L17 ANSWER 5 OF 13 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 2001350890 EMBASE
TI Ultracompact, totally implantable, permanent, pulsatile VAD system.

L17 ANSWER 9 OF 13 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 95090996 EMBASE
TI Glucose biosensors with enzyme entrapped in polymer coating.

L17 ANSWER 10 OF 13 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 92218859 EMBASE
TI A synthetic three-leaflet valve.

L17 ANSWER 12 OF 13 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 90275597 EMBASE
TI Blood compatibility of PEO grafted polyurethane and HEMA/styrene block copolymer surfaces.

L17 ANSWER 6 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:296 HCAPLUS
DOCUMENT NUMBER: 132:65498
TITLE: **Polymers with hydrophilic, bactericidal, antifriction coatings**
INVENTOR(S): Anders, Christine; Meissner, Kristin; Armoneit, Hannelore
PATENT ASSIGNEE(S): Creavis Gesellschaft fuer Technologie Und Innovation m.b.H., Germany
SOURCE: Ger. Offen., 8 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19828369	A1	19991230	DE 1998-19828369	19980626

PRIORITY APPLN. INFO.: DE 1998-19828369 19980626

AB The title coatings, which have good adhesion and bacterial resistance, are prepd. from mixts. of polyisocyanates, polyols, poly(vinylpyrrolidone) (I), and solvents, and are applied on plastics pretreated with NH3 plasmas. An extruded nylon 12 film was treated with an NH3 plasma (40 kHz, 2 kW, 32 Pa) for 10 min, ***dip*** - ***coated*** with a soln. of polyethylene glycol (mol. wt. 400) 1.71, MDI 1.15, I 13.8, and CH2Cl2 320 g, dried, washed, and dried to give a film with bacteria redn. 93% and friction coeff. 0.05 .mu.; vs. 0 and 0.36, resp., with no coating, and 83

and 0.06, resp., without the plasma treatment.

L19 ANSWER 1 OF 5 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 2002059607 EMBASE
TI Selective binding of albumin on stearyl poly(ethylene oxide) coupling polymer-modified poly(ether urethane) surfaces.

L19 ANSWER 5 OF 5 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 91337061 EMBASE
TI New J-3 flexible-leaflet polyurethane heart valve ***prosthesis*** with improved hydrodynamic performance.

L22 ANSWER 1 OF 2 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 97021524 EMBASE
DN 1997021524
TI Analysis of cementless implants using interface nonlinear friction - Experimental and finite element studies.
AU Dammak M.; Shirazi-Adl A.; Zukorf D.J.
CS A. Shirazi-Adl, Division of Applied Mechanics, Department of Mechanical Engineering, Ecole Polytechnique, Box 6079, Station Centre Ville, Montreal, Que. H3C 3A7, Canada
SO Journal of Biomechanics, (1997) 30/2 (121-129).
Refs: 25
ISSN: 0021-9290 CODEN: JBMCB5
PUI S 0021-9290(96)00110-8
CY United Kingdom
DT Journal; Article
FS 033 Orthopedic Surgery
LA English
SL English
AB Measured interface nonlinear friction properties are used to develop models to study the short-term fixation response of smooth- and porous-surfaced posts, bone screws, and plates fixed with and without posts/screws. Experimental studies are carried out to validate the model predictions and identify the relative role of posts and screws in fixation of a plate on a polyurethane block under symmetric/eccentric axial compression loads. The idealized Coulomb's friction is also used for the sake of comparison. The incorporation of measured nonlinear, rather than the idealized Coulomb, friction is essential to compute realistic results. For plate fixation, the experimental and finite element results show that the screw fixation yields the stiffest response followed by the smooth- and then porous- ***coated*** post fixation. For example, under 1000 N eccentric axial compression, the edge of the plate opposite the loaded edge is measured to lift by 1147 .+-. 72, 244 .+-. 38, or 112 .+-. 28 .mu.m, respectively, for the cases with no fixation, with smooth-surfaced posts, or with screws. The corresponding models predict, respectively, values of 1538, 347, or 259 .mu.m and also 556 .mu.m for the plate fixed with porous ***coated*** posts. The satisfactory agreement between numerical and experimental results confirms the importance of proper interface modelling for the analysis of posts, screws, and complex fixation systems. This becomes further evident when considering cementless implants in which the bone-implant interface exhibits relatively large displacements as the maximum resistance force is reached. The developed models can be used to investigate the post-operative short-term stability

of various cementless implant designs.
CT Medical Descriptors:
*friction
****joint prosthesis***
*prosthesis fixation
article
bone screw
plate fixation
priority journal
Drug Descriptors:
polyurethan
RN (polyurethan) ***61789-63-7***

L22 ANSWER 2 OF 2 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN
AN 94269319 EMBASE
DN 1994269319
TI Fixation pule-out response measurement of bone screws and porous-surfaced posts.
AU Shirazi-Adl A.; Dammak M.; Zukor D.J.
CS Division of Applied Mechanics, Department of Mechanical Engineering, Ecole Polytechnique,St C V Montreal, Que. H3C 3A7, Canada
SO Journal of Biomechanics, (1994) 27/10 (1249-1258).
ISSN: 0021-9290 CODEN: JBMCB5
CY United Kingdom
DT Journal; Article
FS 033 Orthopedic Surgery
LA English
SL English
AB Screws and posts are used in various implant designs to contribute to the short- and long-term fixation stability of artificial joints. This study was undertaken to measure the detailed pull-out load-displacement response of bone screws, beaded porous ***coated*** posts, and smooth-surfaced posts in both proximal tibial cancellous bone and polyurethane material under monotonic static and repetitive cyclic loadings. The effect of a number of parameters such as insertion site on the proximal tibia, rate of displacement, insertion depth, outside diameter, drill size, repetitive loading, and boundary conditions were studied. Bone screws resisted significantly larger loads than posts of the same size. Smooth-surfaced posts demonstrated much larger (about twice) pull-out forces than beaded porous ***coated*** posts of the same size. The pull-out force in the proximal tibia was markedly larger at the medial region followed by the lateral region. The central region exhibited the least force. The resistance of screws and posts diminished with repetitive cyclic loads/displacements, especially when these were larger than 50% of their respective values at pull-out force evaluated under monotonic static loading conditions. The smooth-surfaced posts showed superior performance in maintaining their resistance in fatigue than did the porous ***coated*** posts and bone screws. The pull-out force was found to also depend on the pull-out material arrangement and boundary conditions. Pull-out results measured with a specific test design should not, therefore, be compared with those performed using different design configurations.
CT Medical Descriptors:
****joint prosthesis***
*prosthesis fixation
article

bone screw
cadaver
cancellous bone
female
human
human tissue
male
priority journal
tibia
Drug Descriptors:
polyurethan
RN (polyurethan) ***61789-63-7***

L23 ANSWER 1 OF 1 EMBASE
on STN
AN 2001354703 EMBASE
TI Encapsulation of isotope on novel .beta.-emitting poly(ethylene terephthalate) surfaces.